



10/802,616

PATENT

-1-

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Andrei Starodoumov et al.

Application No.: 10/802,616

Filed: March 16, 2004

For: A WAVELENGTH STABILIZED
DIODE-LASER ARRAY

Group Art Unit: Unknown

Examiner: Unknown

**INFORMATION DISCLOSURE
STATEMENT**121 Spear Street, Suite 290
San Francisco, CA 94105
(415) 512-1312Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**CERTIFICATE OF MAILING**I hereby certify that this correspondence is being deposited
with the United States Postal Service as First Class Mail in an
envelope, addressed to: Commissioner for Patents, P.O.
Box 1450, Alexandria, VA 22313-1450 on April 6, 2004.

STALLMAN & POLLOCK LLP

Dated: 04/6/2004

By:

Georgia K. Stith

Sir:

Applicant(s) submit(s) herewith patents, publications or other information [attached hereto and listed on the attached Form PTO-1449 (modified)] of which they are aware, which they believe(s) may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement:

- (a) ☐ accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).
- (b) ☒ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.
- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits, or before a first office action after filing a Request for Continued Examination under § 1.114.
- (d) ☐ is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a

Atty Docket No.: COHV-5060

notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

- (e) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and the Issue Fee has not been paid, and is accompanied by the fee (\$130) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) is checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

- (f) ☐ Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- (g) ☐ No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publication(s) is set forth on the attached Form PTO-1449 (Modified).

A copy of the items on PTO-1449 (Modified) is supplied herewith, except as noted below.

Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached form PTO-1449 (Modified) are not supplied because they are (a) either U.S. Patents and this an application filed after June 30, 2003, or (b) were previously cited by or submitted to the Office in a prior application no. _____, filed _____ and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the items listed on form PTO-1449 (Modified) is:

- (k) ☒ not given
- (l) ☐ given for each listed item

- (m) ☐ given for only non-English language listed item(s) [Required]
- (n) ☐ is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

The Examiner is reminded that a "concise explanation of the relevance" of the submitted items "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention," MPEP § 609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.


In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the listed references.

- ☒ The Commissioner is hereby authorized to charge our Deposit Account No. 50-1703, under Order No. COHV-5060, for any fees required in connection with the filing of this Information Disclosure Statement. **A duplicate copy of this Notice is enclosed for this purpose.** In particular, in the event that an Office Action has crossed in the mail with this Information Disclosure Statement, the Commissioner is authorized to charge the above-named deposit account for any fees required pursuant to CFR §§ 1.17(p) or 1.17(i)(1).

Respectfully submitted,

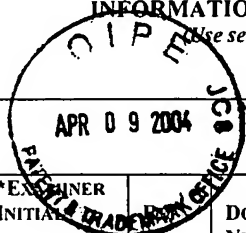
STALLMAN & POLLOCK LLP

Dated: April 5, 2004

By: 
Michael A. Stallman
Reg. No. 29,444

Attorneys for Applicant(s)

INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	Docket Number (Optional) COHV-5060	Application Number 10/802,616
	Applicant(s) Andrei Starodoumov et al.	
	Filing Date March 16, 2004	Group Art Unit Unknown



U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	*AA	4,786,132	11/22/1988	Gordon	350	96.19	03/31/1987
	*AB	4,911,516	03/27/1990	Palfrey et al.	350	96.19	02/27/1989
	*AC	4,914,665	04/03/1990	Sorin	372	20	01/20/1987
	*AD	5,022,042	06/04/1991	Bradley	372	75	09/10/1990
	*AE	5,323,404	06/21/1994	Grubb	372	6	11/02/1993
	*AF	5,485,481	01/16/1996	Ventrudo et al.	372	6	06/28/1994
	*AG	5,589,684	12/31/1996	Ventrudo et al.	250	225	03/30/1995
	*AH	5,715,263	02/03/1998	Ventrudo et al.	372	6	12/19/1995
	*AI	5,864,644	01/26/1999	DiGiovanni et al.	358	43	07/21/1997
	*AJ	5,949,932	02/07/1999	Lawrenz-Stolz	385	33	12/01/1997
	*AK	6,044,093	03/28/2000	Ventrudo et al.	372	6	12/16/1997
	*AL	6,288,835	09/11/2001	Nilsson et al.	359	341.3	06/04/1999

FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

AM	C.R. Giles et al., "Reflection-Induced Changes in the Optical Spectra of 980-nm QW Lasers," <i>IEEE Photonics Technology Letters</i> , Vol. 6, No. 8, August 1994, pp. 903-906.
AN	L. Zhai et al., "Detuning Characteristics of Mode-locked Semiconductor Lasers with a Chirped Fibre-Grating External Cavity," <i>Instn. Radio & Electron. Eng. Australia, Edgecliff, NSW, Australia (Conference: Proceedings of the 18th Australian Conference on Optical Fibre Technology)</i> , 28 Nov. - 1 Dec. 1993, 21 pages in length.
AO	S.L. Woodward et al., "Wavelength Stabilization of a DBR Laser Using an In-Fiber Bragg Filter," <i>IEEE Photonics Technology Letters</i> , Vol. 5, No. 6, June 1993, pp. 628-630.
AP	G.M. Carter et al., "Compression of pulses from a mode locked GaAs laser diode in an extended cavity with a fiber grating reflector," <i>Applied Physics Letters</i> , Vol. 61, No. 4, 27 July 1992, pp. 379-380.
AQ	D.M. Bird et al., "Narrow Line Semiconductor Laser Using Fibre Grating," <i>Electronics Letters</i> , Vol. 27, No. 13, 20 June 1991, pp. 1115-1116.
AR	W.V. Sorin et al., "Tunable Single-Mode Fiber Reflective Grating Filter," <i>Journal of Lightwave Technology</i> , Vol. LT-5, No. 9, September 1987, pp. 1199-1202.
AS	W.V. Sorin et al., "Tunable Single-Mode Output of a Multimode Laser in a Tunable Fibre Grating External Cavity," <i>Electronics Letters</i> , Vol. 23, No. 8, 9 April 1987, pp. 390-391.
AT	A.A. Tager et al., "Stability Regimes and High-Frequency Modulation of Laser Diodes with Short External Cavity," <i>IEEE Journal of Quantum Electronics</i> , Vol. 29, No. 12, December 1993, pp. 2886-2890.
AU	G.L. Koay et al., "Effect of Optical Feedback on Short-Haul Lightwave Systems Using Fabry-Perot Lasers," <i>Instn. Radio & Electron. Eng. Australia, Edgecliff, NSW, Australia (Conference: Proceedings of the 18th Australian Conference on Optical Fibre Technology)</i> , 28 Nov. - 1 Dec. 1993, 4 pages in length.

Examiner	Date Considered
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

	AV	J. Sigg, "Effects of Optical Feedback on the Light-Current Characteristics of Semiconductor Lasers," <i>IEEE Journal of Quantum Electronics</i> , Vol. 29, No. 5, May 1993, pp. 1262-1270.
	AW	S.L. Woodward et al., "The Onset of Coherence Collapse in DFB Lasers," <i>IEEE Photonics Technology Letters</i> , Vol. 4, No. 3, March 1992, pp. 221-223.
	AX	J. Mørk et al., "Chaos in Semiconductor Lasers with Optical Feedback: Theory and Experiment," <i>IEEE Journal of Quantum Electronics</i> , Vol. 28, No. 1, January 1992, pp. 93-108.
	AY	D.M. Byrne et al., "Optical Feedback-Induced Noise in Pigtailed Laser Diode Modules," <i>IEEE Photonics Technology Letters</i> , Vol. 3, No. 10, October 1991, pp. 891-894.
	AZ	J.S. Cohen et al., "The Critical Amount of Optical Feedback for Coherence Collapse in Semiconductor Lasers," <i>IEEE Journal of Quantum Electronics</i> , Vol. 27, No. 1, January 1991, pp. 10-12.
	BA	B. Tromborg et al., "Stability Analysis and the Route to Chaos for Laser Diodes with Optical Feedback," <i>IEEE Photonics Technology Letters</i> , Vol. 2, No. 8, August 1990, pp. 549-552.
	BB	J.O. Binder et al., "Mode Selection and Stability of a Semiconductor Laser with Weak Optical Feedback," <i>IEEE Journal of Quantum Electronics</i> , Vol. 25, No. 11, November 1989, pp. 2255-2259.
	BC	N. Schunk et al., "Stability Analysis for Laser Diodes with Short External Cavities," <i>IEEE Photonics Technology Letters</i> , Vol. 1, No. 3, March 1989, pp. 49-51.
	BD	K. Petermann et al., "Laser diode characteristics with external optical feedback," <i>Fourteenth European Conference on Optical Communication (ECOC 88)</i> , 11-15- September 1988, 20 pages in length.
	BE	N. Schunk et al., "Measured Feedback-Induced Intensity Noise for 1-3µm DFB Laser Diodes," <i>Electronics Letters</i> , Vol. 25, No. 1, 5 January 1989, pp. 63-64.
	BF	N. Schunk et al., "Numerical Analysis of the Feedback Regimes for a Single-Mode Semiconductor Laser with External Feedback," <i>IEEE Journal of Quantum Electronics</i> , Vol. 24, No. 7, June 1988, pp. 1242-1247.
	BG	B.H. Verbeek, "Coherence Properties and L.F. Noise in AlGaAs Lasers with Optical Feedback," <i>SPIE-The International Society for Optical Engineering</i> , Proceedings Vol. 587 Optical Fiber Sources and Detectors, 28-29 November 1985, pp. 93-98.
	BH	C.H. Henry, "Phase Noise in Semiconductor Lasers," <i>Journal of Lightwave Technology</i> , Vol. LT-4, No. 3, March 1986, pp. 298-311.
	BI	D. Lenstra et al., "Coherence Collapse in Single-Mode Semiconductor Lasers Due to Optical Feedback," <i>IEEE Journal of Quantum Electronics</i> , Vol. QE-21, No. 6, June 1985, pp. 674-679.

Examiner	Date Considered
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	